

# Virginia Department of Health

## Center for Injury & Violence Prevention June 2001

## Fractures & Internal Injuries In Virginia

1996-1999

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#### Introduction

This report provides hospialization data on fractures, spinal cord and internal injuries in Virginia.

The data in this report use a coding system to classify the diseases, conditions, treatments, and procedures. They also include patient demographics, the condition (nature of diagnosis) of injury, and resources used (charges billed and the facility where the medical services were provided). A fracture is the most common bone lesion. It is defined as a break in the continuity of a bone or a part of its mineralized structure caused by a traumatic physical force. A fracture may be the result of an excessive impact, rotation, bending, or other mechanical force acting on previously normal bone or may be the consequence of an unnoticed or trivial injury of previously diseased bone (pathologic or spontaneous fracture). A fracture is described as complete or incomplete, simple (closed) or compound (open) if contiguous to an open external or internal wound, and comminuted if the bone is grossly splintered. A stress fracture is caused by the cumulative effect of repeated episodes of physical stress on previously normal bone. Many factors influence fracture repair, among them: the severity of injury; type of fracture; vascular damage; method of treatment; infection; age of patient; hormonal and nutritional factors; and systemic disease.

The case definition that has been adopted by the Center for Disease Control (CDC) for the traumatic cases of spinal cord injury according to the occurrence of an acute traumatic lesion of neural elements in the spinal canal resulting in temporary or permanent sensory deficit, motor deficit, or bladder/bowel dysfunction". These injuries can result in medical treatment, lost time from work and school, and long-term disability. Information about hospitalizations is crucial as we monitor the effectiveness of prevention strategies.

For the convenience of the reader, an injury episode refers to the traumatic event in which the person was injured one or more times from an external cause (fall downstairs, motor vehicle traffic crash). An injury condition is the acute condition or the physical harm caused by the traumatic event (e.g. a fracture or a sprain). An injury episode can result in multiple conditions to the same person. This document presents statistical information on conditions of fracture, spinal cord, intra-cranial, and crushing internal injuries resulting from external injury causes and episodes that occurred from 1996 to 1999 to Virginia residents.

The following inclusion and exclusion criteria were used to identify hospitalization data to be included in this report: inclusion criteria are E-coded information, conditions of injury diagnosis code, residing in Virginia, exclusion criteria are late or adverse effects of medical care and place of occurrence (E-849) if the only E-code.

#### **External Causes of Injury**

**Table 1** displays the external causes of injury hospitalizations by conditions of injury. Falls accounted for 94% of the fracture neck femur, 36% of spinal cord injuries, and 37% of intra-cranial injuries. Motor vehicle traffic accounted for 36% of spinal cord injuries, 28% of skull and face fractures, 39% of intra-cranial injuries, and 37% of crushing internal injuries. See **Figure 1** for further information.

**Table 2** illustrates the injury hospitalization intent by conditions of injury. Unintentional injury accounted for 89% of spinal cord injuries, 68% of skull and face fractures, 89% of intra-cranial injuries, and 74% of crushing internal injuries. Assault accounted for 9% of spinal cord injuries, 31% of skull and face fractures, 9% of intra-cranial injuries, and 21% of crushing internal injuries. See **Figure 2** for further information on the conditions of injury hospitalizations.

#### Age, Gender, and Race Distribution

The age distribution of conditions of injury hospitalizations from all external injury causes and episodes is presented in **Table 3**. Intra-cranial injuries accounted for 440 or 31% of the injury hospitalizations for those ages 5 years and younger. Fracture neck femur were ranked as the leading cause of injury hospitalizations for those ages 65 years and over (n=16,747 or 52%). See **Figure 3** for further information.

The gender distribution of conditions of injury hospitalizations from all external injury causes and episodes is presented in **Table 4**. Injury hospitalizations were more common among females (N=39,390 or 53.5%) than males (N=34,188 or 46.5%). Fracture neck femur accounted for 14,302 or 36% of the female injury hospitalizations followed by fracture lower limbs (N=8,820 or 22.4%). Fracture lower limbs accounted for 7,853 or 23% of the male injury hospitalizations followed by intra-cranial injuries (N=5,000 or 15%).

Rates calculated per 100,000 Virginia residents showed that women have significantly higher rates of hospitalizations for fracture neck femur (RR=3.06) and fracture lower limbs (RR=1.07) than males. Males, on the other hand, were almost three times as likely as females to be hospitalized for skull fractures (RR=2.8). Men were almost two times as likely as females to be hospitalized for intra-cranial injuries (RR=1.8). See **Figure 4** for further information.

**Table 5** illustrates the conditions of injury hospitalizations by race in Virginia from 1996 through 1999. Whites accounted for 71.8% of the injury conditions and a rate of 267.5 per 100,000 white population in Virginia, while blacks accounted for 15.3% of the total conditions of injury hospitalizations and a rate of 209.6 per 100,000 black population in Virginia. Hispanics accounted for 1.5% of the total conditions of injury hospitalizations and a rate of 114.7 per 100,000 population and other races accounted for 1.6% and a rate of 117.7 per 100,000 population. Almost 10% of the total conditions of injury discharges reported unknown race.

When looking at relative risks compared to blacks, whites have a higher risk of being hospitalized for fracture neck femur (RR=3.08, 95%CI=2.91,3.26). Blacks, on the other hand, have a higher risk of being hospitalized for spinal cord injuries (RR=2.06, 95%CI=1.74,2.43), skull fractures (RR=1.78, 95%CI=1.64,1.94), and crushing internal injury (RR=1.8, 95%CI=1.7,1.91). See **Figure 5** for further information.

#### **Discussions**

The hospitalization data is a useful source of information about nonfatal injury admissions occurring in Virginia. Four years of hospitalization data provide enough information to produce stable statewide estimates on details of injury episodes and diagnosis. Among older adults, fractures are the most serious health outcomes associated with falls. Of all fractures from falls, hip fractures cause the greatest number of hospitalizations and lead to the most severe health problems. Half of all older adults hospitalized for hip fractures can not return home or live independently after their injuries. Injured people need help in handling daily routines such as household chores and shopping, and attending to personal care such as eating and bathing. The percent of people with limitations in both personal care and daily routine increases with age.

Factors that contribute to falls include problems with gait and balance, neurological and musculoskeletal disabilities, psychoactive medication use, dementia, and visual impairment. Environmental hazards such as slippery surfaces, uneven floors, poor lighting, loose rugs, unstable furniture, and objects on floors may also play a role. Fall costs include out-of-pocket expenses and charges paid by insurance companies for the treatment of fall-related injuries. These include costs and fees associated with hospital and nursing home care, physician and other professional services, rehabilitation, community-based services, the use of medical equipment, prescription drugs local rehabilitation, home modifications, and insurance administration.

#### What can older adults do to reduce their risk of falling?

Maintain a regular exercise program. Exercise improves strength, balance, and coordination. Take steps to make living areas safer. Remove tripping hazards and use non-slip mats in the bathtub and on shower floors. Have grab bars put in next to the toilet and in the tub or shower, and have handrails put in on both sides of all stairs. Ask their doctor to review all of their medicines in order to reduce side effects and interactions. Have an eye doctor check their vision each year. Poor vision can increase the risk of falling.

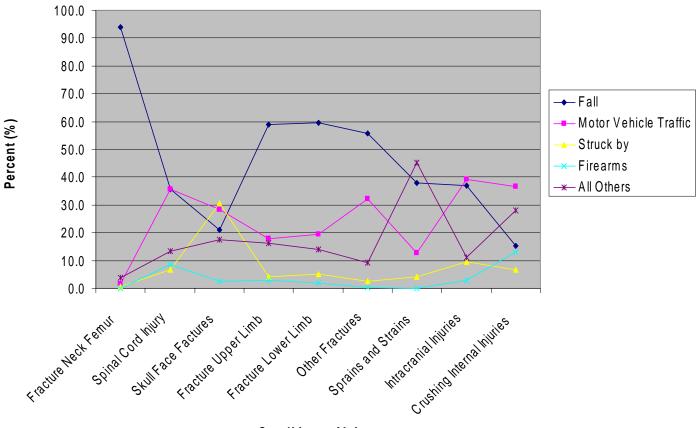
#### What can children and young adults do to reduce their risk of injury?

The above recommendations for older adults are also relevant to this age group as well. Supervision and instruction of those participating in sport and recreational activities to reduce dangerous behaviors and wear appropriate safety gear such as helmets and protective padding are behavioral measures that will reduce injury. Installing window guards on elevated windows, age appropriate recreational equipment, absorbent surfacing on playgrounds are some examples of environmental risk reduction. Violence prevention measures will impact the significant percentage of these injuries that are intentional.

Table 1: External Causes of Injury by Conditions of Injury Hospitalizations, E-Coded Hospital Discharge Data, VA 1996 to 1999

	Fracture Neck		<b>Spinal Cord</b>		Skull Face	
Causes	Femur	Column (%)	Injury	Column (%)	Fractures	Column (%)
	8	0.0	2	0.3	17	0.6
Cut pierce Fall	17636	94.0	249	35.8	621	21.2
	23		59		78	
Firearm		0.1		8.5		2.7
Machinery	11	0.1	11	1.6	12	0.4
Motor Vehicle traffic	323	1.7	248	35.6	828	28.2
Pedal cyclist other	66	0.4	8	1.1	89	3.0
Transport, Other	79	0.4	22	3.2	57	1.9
Overexertion	84	0.4	6	0.9	2	0.1
Struck by/ against	90	0.5	47	6.8	894	30.5
All Others	442	2.4	44	6.3	336	11.5
Total	18762	100.0	696	100.0	2934	100.0
Causes	Fracture Upper Limb	Column (%)	Fracture Lower Limb	Column (%)	Other Fractures	Column (%)
Cut pierce	117	1.5	110	0.7	5	0.05
Fall	4624	59.1	9944	59.6	5266	55.60
Firearm	224	2.9	300	1.8	37	0.39
Machinery	246	3.1	185	1.1	66	0.70
Motor Vehicle traffic	1390	17.8	3218	19.3	3050	32.20
Pedal cyclist other	198	2.5	188	1.1	54	0.57
Transport, Other	191	2.4	391	2.3	316	3.34
Overexertion	44	0.6	612	3.7	97	1.02
Struck by/ against	326	4.2	853	5.1	235	2.48
All Others	469	6.0	874	5.2	345	3.64
Total	7829	100.0	16675	100.0	9471	100.00
					Crushing	
	Sprains and		Intracranial		Internal	
Causes	Sprains and Strains	Column (%)	Intracranial Injuries	Column (%)		Column (%)
	•	<b>Column (%)</b>		<b>Column (%)</b>	Internal	<b>Column (%)</b> 13.6
Causes Cut pierce Fall	Strains	, ,	Injuries	, ,	Internal Injuries	, ,
Cut pierce	Strains 7	0.2	Injuries 25	0.3	Internal Injuries 836	13.6
Cut pierce Fall Firearm	Strains 7	0.2 37.8	<b>Injuries</b> 25 2916	0.3 37.0	Internal Injuries 836 946	13.6 15.4
Cut pierce Fall	Strains 7 1208	0.2 37.8 0.0	25 2916 234	0.3 37.0 3.0	Internal Injuries 836 946 809	13.6 15.4 13.2
Cut pierce Fall Firearm Machinery Motor Vehicle traffic	7 1208	0.2 37.8 0.0 0.2 12.9	25 2916 234 22 3084	0.3 37.0 3.0 0.3 39.2	Internal Injuries 836 946 809 118 2251	13.6 15.4 13.2 1.9 36.6
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other	7 1208 6 411 7	0.2 37.8 0.0 0.2	25 2916 234 22 3084 206	0.3 37.0 3.0 0.3 39.2 2.6	836 946 809 118 2251 135	13.6 15.4 13.2 1.9 36.6 2.2
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other	5trains 7 1208 6 411 7 39	0.2 37.8 0.0 0.2 12.9 0.2 1.2	25 2916 234 22 3084	0.3 37.0 3.0 0.3 39.2 2.6 2.6	Internal Injuries 836 946 809 118 2251	13.6 15.4 13.2 1.9 36.6 2.2 3.3
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion	7 1208 6 411 7	0.2 37.8 0.0 0.2 12.9 0.2	25 2916 234 22 3084 206 203	0.3 37.0 3.0 0.3 39.2 2.6 2.6	836 946 809 118 2251 135 200	13.6 15.4 13.2 1.9 36.6 2.2
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other	5trains 7 1208 6 411 7 39 656	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5	25 2916 234 22 3084 206 203	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0	836 946 809 118 2251 135 200	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0
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Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others	5trains  7 1208 6 411 7 39 656 133 730	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8	25 2916 234 22 3084 206 203 3 757 424	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes	7 1208 6 411 7 39 656 133 730 3197	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%)	25 2916 234 22 3084 206 203 3 757 424 7874 Rate	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%)	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total 1127 43410	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%)	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total  1127 43410 1764	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery	\$trains  7 1208  6 411 7 39 656 133 730 3197 Total  1127 43410 1764 677	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4 0.9	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5 2.5	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery Motor Vehicle traffic	\$trains  7 1208  6 411 7 39 656 133 730 3197 Total  1127 43410 1764 677 14803	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4 0.9 20.1	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5 2.5 54.7	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
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Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total 1127 43410 1764 677 14803 951 1498	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4 0.9 20.1 1.3 2.0	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5 2.5 54.7 3.5 5.5	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total  1127 43410 1764 677 14803 951 1498 1520	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 1.5 59.0 2.4 0.9 20.1 1.3 2.0 2.0	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5 2.5 54.7 3.5 5.6	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against	\$trains  7 1208  6 411 7 39 656 133 730 3197 Total  1127 43410 1764 677 14803 951 1498 1520 3754	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4 0.9 20.1 1.3 2.0 2.0 5.1	Injuries   25   2916   234   22   3084   206   203   3   757   424   7874   Rate   4.2   160.4   6.5   2.5   54.7   3.5   5.5   5.6   13.9	0.3 37.0 3.0 0.3 39.2 2.6 2.6 0.0 9.6 5.4	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9
Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion Struck by/ against All Others Total Causes Cut pierce Fall Firearm Machinery Motor Vehicle traffic Pedal cyclist other Transport, Other Overexertion	\$trains  7 1208 6 411 7 39 656 133 730 3197 Total  1127 43410 1764 677 14803 951 1498 1520	0.2 37.8 0.0 0.2 12.9 0.2 1.2 20.5 4.2 22.8 100.0 Column (%) 59.0 2.4 0.9 20.1 1.3 2.0 2.0 5.1 5.6	25 2916 234 22 3084 206 203 3 757 424 7874 Rate 4.2 160.4 6.5 2.5 54.7 3.5 5.6	0.3 37.0 3.0 0.3 39.2 2.6 0.0 9.6 5.4 100.0	836 946 809 118 2251 135 200 16 419	13.6 15.4 13.2 1.9 36.6 2.2 3.3 0.0 6.8 6.9

Figure 1: External Causes of Injury by Conditions of Injury Hospitalizations, E-Coded Hospital discharge Data, VA 1996 to 1999



Conditions of Injury

Table 2: Intentional Categories of Injury by Conditions of Injury Hospitalizations, E-Coded Hospital Discharge Data, VA 1996-1998

	Fracture Neck	Column	Spinal Cord		Skull Face	Column	Fracture	Column
Intent	Femur	(%)	Injury	(%)	Fractures	(%)	Upper Limb	(%)
Unintentional	18691	99.6	622	89.4	1979	67.5	7548	96.4
Self Inflicted	9	0.0	5	0.7	15	0.5	18	0.2
Assault	51	0.3	61	8.8	919	31.3	231	3.0
Undetermined	11	0.1	8	1.1	21	0.7	32	0.4
Total	18762	100.0	696	100.0	2934	100.0	7829	100.0
	Fracture Lower	Column	Other	Column	Sprains and	Column	Intracranial	Column
Intent	Limb	(%)	Fractures	(%)	Strains	(%)	Injuries	(%)
Unintentional	16247	97.4	9308	98.3	3143	98.3	6980	88.6
Self Inflicted	31	0.2	17	0.2	0	0.0	120	1.5
Assault	293	1.8	121	1.3	23	0.7	697	8.9
Undetermined	104	0.6	25	0.3	31	1.0	77	1.0
Total	16675	100.0	9471	100.0	3197	100.0	7874	100.0
	<b>Crushing Internal</b>	Column		Column				
Intent	Injuries	(%)	Total	(%)	Rate			
Unintentional	4541	73.8	69059	93.8	255.2			
Self Inflicted	191	3.1	406	0.6	1.5			
Assault	1299	21.1	3695	5.0	13.7			
Undetermined	119	1.9	428	0.6	1.6			
Total	6150	100.0	73588	100.0	271.9			

Figure 2: Conditions of Injury Hospitalizations, E-Coded Hospital Discharge Data, VA 1996-1999 (N=73588)

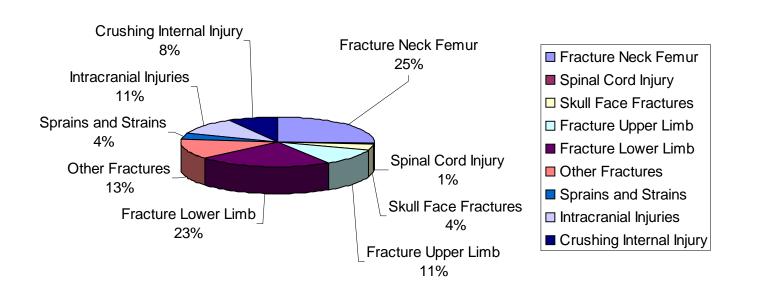


Table 3: Conditions of Injury Hospitalzations by Age, E-Coded Hospital Discharge Data, VA 1996 to 1999

Conditions	0-4 Years	Column (%)	Rate	5-9 Years	Column (%)	Rate	10-14 Years	Column (%)	Rate
Fracture Neck Femur	27	1.9	1.5	17	1.0	0.9	63	3.0	3.5
Spinal Cord Injury	4	0.3	0.2	2	0.1	0.1	21	1.0	1.2
Skull Face Fractures	214	14.9	11.9	118	7.1	6.3	134	6.4	7.4
Fracture Upper Limb	288	20.0	16.0	629	37.6	33.6	492	23.4	27.2
Fracture Lower Limb	345	24.0	19.1	335	20.0	17.9	657	31.3	36.3
Other Fractures	23	1.6	1.3	37	2.2	2.0	102	4.9	5.6
Sprains And Strains	6	0.4	0.3	8	0.5	0.4	31	1.5	1.7
Intracranial Injuries	440	30.6	24.4	334	20.0	17.9	355	16.9	19.6
Crushing Internal Injury	91	6.3	5.0	192	11.5	10.3	247	11.8	13.7
Total	1438	100.0	79.8	1672	100.0	89.4	2102	100.0	116.2
Conditions	15-19 Years	Column (%)	Rate	20-24 Years	Column (%)	Rate	25-34 Years	Column (%)	Rate
Fracture Neck Femur	60	1.4	3.2	52	1.4	2.8	145	2.0	3.3
Spinal Cord Injury	72	1.7	3.9	63	1.7	3.4	120	1.7	2.8
Skull Face Fractures	370	8.6	20.0	331	8.8	17.7	609	8.5	14.1
Fracture Upper Limb	423	9.8	22.8	413	11.0	22.1	856	11.9	19.8
Fracture Lower Limb	1001	23.3	54.1	915	24.4	49.0	2133	29.6	49.3
Other Fractures	438	10.2	23.7	409	10.9	21.9	834	11.6	19.3
Sprains And Strains	171	4.0	9.2	142	3.8	7.6	399	5.5	9.2
Intracranial Injuries	959	22.3	51.8	631	16.9	33.8	931	12.9	21.5
Crushing Internal Injury	802	18.7	43.3	788	21.0	42.2	1173	16.3	27.1
Total	4296	100.0	232.0	3744	100.0	200.5	7200	100.0	166.3
Conditions	35-44 Years	Column (%)	Rate	45-54 Years	Column (%)	Rate	55-64 Years	Column (%)	Rate
Conditions Fracture Neck Femur	253	3.2	5.4	445	6.5	12.4	953	<b>Column (%)</b> 16.2	42.8
Fracture Neck Femur Spinal Cord Injury	253 137	3.2 1.7	5.4 2.9	445 91	6.5 1.3	12.4 2.5	953 57	16.2 1.0	42.8 2.6
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures	253 137 538	3.2 1.7 6.8	5.4 2.9 11.5	445 91 253	6.5 1.3 3.7	12.4 2.5 7.1	953 57 94	16.2 1.0 1.6	42.8 2.6 4.2
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb	253 137 538 843	3.2 1.7 6.8 10.7	5.4 2.9 11.5 18.0	445 91 253 766	6.5 1.3 3.7 11.2	12.4 2.5 7.1 21.4	953 57 94 651	16.2 1.0 1.6 11.1	42.8 2.6 4.2 29.2
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb	253 137 538 843 2627	3.2 1.7 6.8 10.7 33.4	5.4 2.9 11.5 18.0 56.2	445 91 253 766 2419	6.5 1.3 3.7 11.2 35.3	12.4 2.5 7.1 21.4 67.5	953 57 94 651 2021	16.2 1.0 1.6 11.1 34.4	42.8 2.6 4.2 29.2 90.7
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures	253 137 538 843 2627 1030	3.2 1.7 6.8 10.7 33.4 13.1	5.4 2.9 11.5 18.0 56.2 22.0	445 91 253 766 2419 980	6.5 1.3 3.7 11.2 35.3 14.3	12.4 2.5 7.1 21.4 67.5 27.3	953 57 94 651 2021 785	16.2 1.0 1.6 11.1 34.4 13.4	42.8 2.6 4.2 29.2 90.7 35.2
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains	253 137 538 843 2627 1030 491	3.2 1.7 6.8 10.7 33.4 13.1 6.2	5.4 2.9 11.5 18.0 56.2 22.0	445 91 253 766 2419 980 513	6.5 1.3 3.7 11.2 35.3 14.3 7.5	12.4 2.5 7.1 21.4 67.5 27.3 14.3	953 57 94 651 2021 785 448	16.2 1.0 1.6 11.1 34.4 13.4 7.6	42.8 2.6 4.2 29.2 90.7 35.2 20.1
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries	253 137 538 843 2627 1030 491 949	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3	445 91 253 766 2419 980 513 695	6.5 1.3 3.7 11.2 35.3 14.3 7.5	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury	253 137 538 843 2627 1030 491 949 1008	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6	445 91 253 766 2419 980 513 695	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5 6.2	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total	253 137 538 843 2627 1030 491 949 1008	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 168.5	445 91 253 766 2419 980 513 695 699	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions	253 137 538 843 2627 1030 491 949 1008 7876 65 and Over	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%)	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 168.5 Rate	445 91 253 766 2419 980 513 695 699 <b>6861</b> Total	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%)	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b>	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5 6.2	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur	253 137 538 843 2627 1030 491 949 1008 <b>7876</b> <b>65 and Over</b>	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%)	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50	445 91 253 766 2419 980 513 695 699 6861 Total	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%)	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b> 69.3	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5 6.2	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury	253 137 538 843 2627 1030 491 949 1008 <b>7876</b> <b>65 and Over</b> 16747	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b> 69.3 2.6	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5 6.2	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures	253 137 538 843 2627 1030 491 949 1008 <b>7876</b> <b>65 and Over</b> 16747 129 273	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b> 69.3 2.6 10.8	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5 6.2	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb	253 137 538 843 2627 1030 491 949 1008 <b>7876 65 and Over</b> 16747 129 273	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23 8.96	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b> 69.3 2.6 10.8 28.9	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb	253 137 538 843 2627 1030 491 949 1008 <b>7876 65 and Over</b> 16747 129 273 2468 4222	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6 13.0	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23 8.96 80.98 138.53	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829 16675	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6 22.7	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 191.4 Rate 69.3 2.6 10.8 28.9 61.6	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures	253 137 538 843 2627 1030 491 949 1008 7876 65 and Over 16747 129 273 2468 4222 4833	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6 13.0 14.9	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 168.5 Rate 549.50 4.23 8.96 80.98 138.53 158.58	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829 16675	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6 22.7 12.9	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 <b>191.4</b> <b>Rate</b> 69.3 2.6 10.8 28.9 61.6 35.0	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains	253 137 538 843 2627 1030 491 949 1008 7876 65 and Over 16747 129 273 2468 4222 4833 988	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6 13.0 14.9 3.0	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23 8.96 80.98 138.53 158.58 32.42	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829 16675 9471 3197	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6 22.7 12.9 4.3	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 191.4 Rate 69.3 2.6 10.8 28.9 61.6 35.0 11.8	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries	253 137 538 843 2627 1030 491 949 1008 7876 65 and Over 16747 129 273 2468 4222 4833 988 2079	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6 13.0 14.9 3.0 6.4	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23 8.96 80.98 138.53 158.58 32.42 68.22	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829 16675 9471 3197 7874	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6 22.7 12.9 4.3 10.7	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 191.4 Rate 69.3 2.6 10.8 28.9 61.6 35.0 11.8 29.1	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains Intracranial Injuries Crushing Internal Injury Total Conditions Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains	253 137 538 843 2627 1030 491 949 1008 7876 65 and Over 16747 129 273 2468 4222 4833 988	3.2 1.7 6.8 10.7 33.4 13.1 6.2 12.0 12.8 100.0 Column (%) 51.5 0.4 0.8 7.6 13.0 14.9 3.0 6.4 2.4	5.4 2.9 11.5 18.0 56.2 22.0 10.5 20.3 21.6 <b>168.5</b> <b>Rate</b> 549.50 4.23 8.96 80.98 138.53 158.58 32.42	445 91 253 766 2419 980 513 695 699 6861 Total 18762 696 2934 7829 16675 9471 3197	6.5 1.3 3.7 11.2 35.3 14.3 7.5 10.1 10.2 100.0 Column (%) 25.5 0.9 4.0 10.6 22.7 12.9 4.3	12.4 2.5 7.1 21.4 67.5 27.3 14.3 19.4 19.5 191.4 Rate 69.3 2.6 10.8 28.9 61.6 35.0 11.8 29.1 22.7	953 57 94 651 2021 785 448 501	16.2 1.0 1.6 11.1 34.4 13.4 7.6 8.5	42.8 2.6 4.2 29.2 90.7 35.2 20.1 22.5 16.3

Figure 3: Conditions of Injury Hospitalizations by Age Groups, E-Coded Hospital Discharge Data, VA 1996 to 1999 (N=51140)

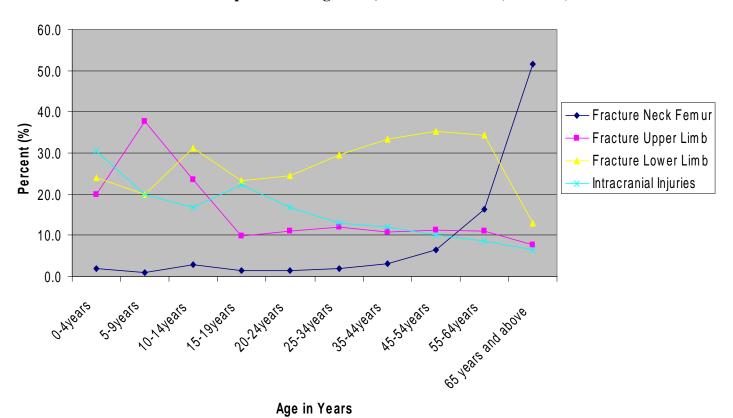
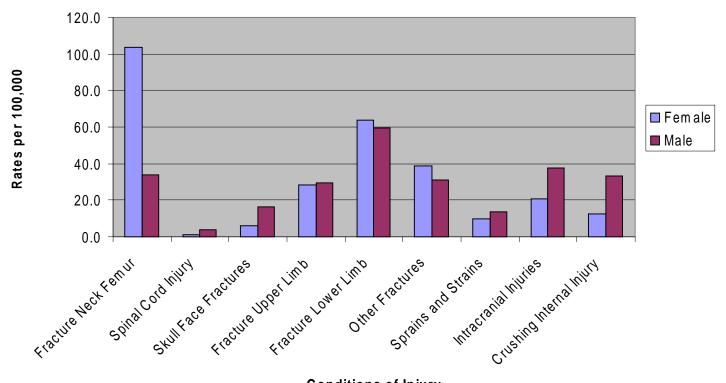


Table 4: Conditions of Injury Hospitalzations by Gender, E-Coded Hospital Discharge Data, VA 1996 to 1999

Conditions	Female	Column (%)	Rate	Male	Column (%)	Rate	Unknown
Fracture Neck Femur	14302	36.3	103.4	4460	13.0	33.7	
Spinal Cord Injury	169	0.4	1.2	527	1.5	4.0	
Skull Face Fractures	799	2.0	5.8	2133	6.2	16.1	2
Fracture Upper Limb	3952	10.0				29.3	
Fracture Lower Limb	8820	22.4	63.7	7853	23.0	59.4	2
Other Fractures	5347	13.6	38.6	4124	12.1	31.2	
Sprains And Strains	1387	3.5	10.0	1810	5.3	13.7	
Intracranial Injuries	2870	7.3	20.7	5000	14.6	37.8	4
Crushing Internal Injury	1744	4.4	12.6	4405	12.9	33.3	
Total	39390	100.0	284.7	34188	100.0	258.5	10
Conditions	Total	Column (%)	Rate	RR(F/M)	95% CI	RR(M/F)	95% CI
Conditions Fracture Neck Femur	<b>Total</b> 18762	<b>Column (%)</b> 25.5	<b>Rate</b> 69.3		<b>95% CI</b> 2.96,3.17		<b>95% CI</b> 0.32,0.34
		25.5		3.06		0.33	
Fracture Neck Femur	18762	25.5 0.9	69.3	3.06 0.31	2.96,3.17	0.33 3.26	0.32,0.34
Fracture Neck Femur Spinal Cord Injury	18762 696	25.5 0.9 4.0	69.3 2.6	3.06 0.31 0.36 0.97	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02	0.33 3.26 2.79	0.32,0.34 2.74,3.88
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures	18762 696 2934	25.5 0.9 4.0 10.6	69.3 2.6 10.8 28.9 61.6	3.06 0.31 0.36 0.97 1.07	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02 1.04,1.11	0.33 3.26 2.79 1.03 0.93	0.32,0.34 2.74,3.88 2.58,3.03 0.98,1.07 0.90,0.96
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb	18762 696 2934 7829	25.5 0.9 4.0 10.6	69.3 2.6 10.8 28.9	3.06 0.31 0.36 0.97 1.07	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02 1.04,1.11 1.19,1.29	0.33 3.26 2.79 1.03 0.93 0.81	0.32,0.34 2.74,3.88 2.58,3.03 0.98,1.07 0.90,0.96 0.77,0.84
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains	18762 696 2934 7829 16675	25.5 0.9 4.0 10.6 22.7	69.3 2.6 10.8 28.9 61.6	3.06 0.31 0.36 0.97 1.07 1.24 0.73	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02 1.04,1.11 1.19,1.29 0.68,0.79	0.33 3.26 2.79 1.03 0.93 0.81 1.37	0.32,0.34 2.74,3.88 2.58,3.03 0.98,1.07 0.90,0.96 0.77,0.84 1.27,1.46
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures	18762 696 2934 7829 16675 9471	25.5 0.9 4.0 10.6 22.7 12.9 4.3	69.3 2.6 10.8 28.9 61.6 35.0	3.06 0.31 0.36 0.97 1.07 1.24 0.73	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02 1.04,1.11 1.19,1.29 0.68,0.79 0.52,0.57	0.33 3.26 2.79 1.03 0.93 0.81 1.37	0.32,0.34 2.74,3.88 2.58,3.03 0.98,1.07 0.90,0.96 0.77,0.84
Fracture Neck Femur Spinal Cord Injury Skull Face Fractures Fracture Upper Limb Fracture Lower Limb Other Fractures Sprains And Strains	18762 696 2934 7829 16675 9471 3197	25.5 0.9 4.0 10.6 22.7 12.9 4.3 10.7	69.3 2.6 10.8 28.9 61.6 35.0 11.8	3.06 0.31 0.36 0.97 1.07 1.24 0.73	2.96,3.17 0.26,0.36 0.33,0.39 0.93,1.02 1.04,1.11 1.19,1.29 0.68,0.79	0.33 3.26 2.79 1.03 0.93 0.81 1.37 1.82 2.64	0.32,0.34 2.74,3.88 2.58,3.03 0.98,1.07 0.90,0.96 0.77,0.84 1.27,1.46

Figure 4: Conditions of Injury Hospitalizations by Gender, E-Coded Hospital Discharge Data, VA 1996 to 1999 (N=73578)

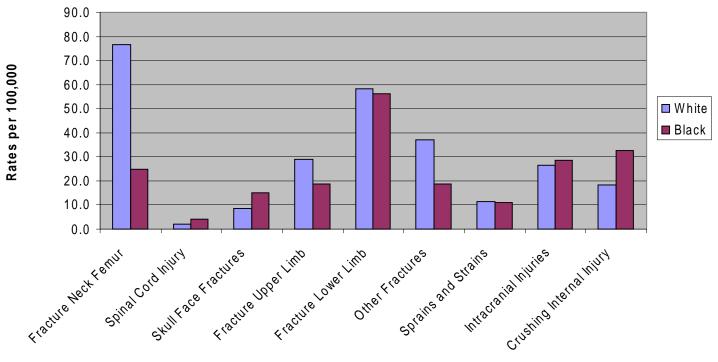


**Conditions of Injury** 

Table 5: Conditions of Injury Hospitalzations by Race, E-Coded Hospital Discharge Data, VA 1996 to 1999

Conditions	White	Column (%)	Rate	Black	Column (%)	Rate	Other	Column (%)	Rate	His
Fracture Neck Femur	15155	28.7	76.7	1340	11.9	24.9	198	16.4	19.32	
Spinal Cord Injury	384	0.7	1.9	215	1.9	4.0	17	1.4	1.66	
Skull Face Fractures	1685	3.2	8.5	819	7.3	15.2	63	5.2	6.15	
Fracture Upper Limb	5737	10.9	29.0	998	8.8	18.5	159	13.2	15.52	
Fracture Lower Limb	11470	21.7	58.0	3019	26.8	56.1	262	21.7	25.57	
Other Fractures	7351	13.9	37.2	1004	8.9	18.6	178	14.8	17.37	
Sprains And Strains	2285	4.3			5.2			4.3	5.07	
Intracranial Injuries	5209	9.9	26.4	1536	13.6	28.5	150	12.4	14.64	
Crushing Internal Injury	3589	6.8	18.2	1761	15.6	32.7	127	10.5	12.39	
Total	52865	100.0	267.5	11284	100.0	209.6	1206	100.0	117.69	
Conditions	Unknown	Column (%)	Total	Column (%)	Rate	RR(W/B)	95% CI	RR(B/W)	95% CI	
Fracture Neck Femur	2022	28.4	18762	25.5	69.3	3.08	2.91,3.26	0.32	0.31,0.34	
Spinal Cord Injury	66	0.9	696	0.9	2.6	0.49	0.41,0.57	2.06	1.74,2.43	
Skull Face Fractures	297	4.2	2934	4.0	10.8	0.56	0.52,0.61	1.78	1.64,1.94	
Fracture Upper Limb	741	10.4	7829	10.6	28.9	1.57	1.46,1.67	0.64	0.60,0.68	
Fracture Lower Limb	1611	22.7	16675	22.7	61.6	1.03	0.99,1.08	0.97	0.93,1.01	
Other Fractures	812	11.4	9471	12.9	35.0	1.99	1.87,2.13		0.47,0.54	
Sprains And Strains	240	3.4	3197	4.3	11.8	1.05	0.96,1.15	0.95	0.87,1.04	
Intracranial Injuries	794	11.2	7874	10.7	29.1		0.87,0.98	1.08	1.02,1.15	
Crushing Internal Injury	528	7.4	6150	8.4	22.7	0.56	0.52,0.59	1.8	1.70,1.91	
Total	7111	100.0	73588	100.0	271.9	1.28	1.25,1.30	0.78	0.77,0.80	

Figure 5: Conditions of Injury Hospitalizations by Race, E-Coded Hospital Discharge Data, VA 1996 to 1999 (N=64149)



**Conditions of Injury** 

### **Appendix**

The Conditions of Injury Hospitalizations by Total Charges, Length of Stay, and Final Outcome

#### The Conditions of Injury Hospitalizations by Final Outcome

Gr. A	Fracture Neck		Spinal Cord		Skull Face		Fracture	
Status	Femur	Column (%)	Injury	Column (%)	Fractures	Column (%)	Upper Limb	Column (%)
Discharged to home or self care	3386	18.0	264	37.9	2606	88.8	6291	80.4
Discharged/Transferred to a skilled								
nursing facility Discharged/Transferred to an	8135	43.4	63	9.1	37	1.3	593	7.6
intermediate care facility	2010	10.7	58	8.3	63	2.1	179	2.3
Discharged/Transferred to another type								
of institution	2805	15.0	234	33.6	103	3.5	189	2.4
Discharged/Transferred to home under								
the care of a Home IVP	512	2.7	15	2.2	25	0.9	157	2.0
Discharged/Transferred to home under the care of HHSO	1420	7.0	22	2.2		2.2	202	4.0
Expired	1420 380	7.6 2.0	23 28	3.3 4.0	67 17	2.3 0.6	382 17	4.9 0.2
Left against medical advice or	300	2.0	20	-1.0	17	0.0	17	0.2
discontinued care	114	0.6	11	1.6	16	0.5	21	0.3
Total	18762	100.0	696	100.0	2934	100.0	7829	100.0
Status	Fracture Lower Limb	Column (%)	Other Fractures	Column (%)	Sprains And Strains	Column (%)	Intracranial Injuries	Column (%)
		COMMITT (70)	Tractares	Column (70)		Column (70)	Hjures	Column (70)
Discharged to home or self care	12090	72.5	5584	59.0	2854	89.3	5083	64.6
Discharged/Transferred to a skilled nursing facility	1512	9.1	1526	16.1	105	3.3	528	6.7
Discharged/Transferred to an	1012	7.12	1020	10.1	100	0.0	520	0.7
intermediate care facility	496	3.0	452	4.8	30	0.9	310	3.9
Discharged/Transferred to another type of institution	654	3.9	625	6.6	49	1.5	837	10.6
Discharged/Transferred to home under								
the care of a Home IVP	514	3.1	331	3.5	35	1.1	83	1.1
Discharged/Transferred to home under the care of HHSO	1313	7.9	835	8.8	110	3.7	248	2.1
Expired	54	0.3	74	0.8	118	0.0	240 545	3.1 6.9
Left against medical advice or	<u> </u>	0.0	, .	0.0		0.0	0.0	0.5
discontinued care	42	0.3	44	0.5	5	0.2	240	
Total	16675 Crushing	100.0	9471	100.0	3197	100.0	7874	100.0
Status	_	Column (%)	Total	Column (%)				
Discharged to home or self care	4967	80.8	43125	58.6				
Discharged/Transferred to a skilled nursing facility	143	2.3	12642	17.2				
Discharged/Transferred to an	143	2.3	120 12	17.2				
intermediate care facility	174	2.8	3772	5.1				
Discharged/Transferred to another type of institution	281	4.6	5777	7.9				
Discharged/Transferred to home under								
the care of a Home IVP	83	1.3	1755	2.4				
Discharged/Transferred to home under the care of HHSO	239	3.9	4645	6.3				
Expired	163		1279	1.7				
Left against medical advice or	103		12.7	2.7				
discontinued care	100		593	0.8				
Total	6150	100.0	73588	100.0				

#### The Conditions of Injury Hospitalizations by Total Charges and Length of Stay

Conditions	Frequency	Column (%)	Total Charges (\$)	Average Charges (\$)	Total LOS	Average LOS
Fracture Neck Femur	18762	25.5	299,057,953	15,940	132788	7.1
Spinal Cord Injury	696	0.9	30,508,351	43,834	9240	13.3
Skull Face Fractures	2934	4.0	32,221,101	10,982	9180	3.1
Fracture Upper Limb	7829	10.6	73,938,373	9,444	23894	3.1
Fracture Lower Limb	16675	22.7	206,391,168	12,377	73525	4.4
Other Fractures	9471	12.9	104,162,671	10,998	53385	5.6
Sprains And Strains	3197	4.3	20,463,205	6,401	7692	2.4
Intracranial Injuries	7874	10.7	143,795,500	18,262	50275	6.4
Crushing Internal Injury	6150	8.4	117,186,808	19,055	39746	6.5
Total	73588	100.0	1,027,725,130	13,966	399725	5.4

